



SEQUENCE LISTING


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<120> Selection System

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 <150> GB 9810223.9

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<170> PatentIn version 3.1

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<400> 1

Pro Ala Gly Leu Ser Glu Gly Ser Thr Ile Glu Gly Arg Gly Ala His

1

5

10

15

Glu

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ggcaccctca gaacgggtacc ccaccctcag aggccggctg ggccgccacc ctcagag

57

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ggtaggcggcc cagccggcct ttctgagggg tcgactatag aaggacgagg gcccagcgaa 60

ggaggtgggg taccaccttc tgaggggtgg 89

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ccacctcag aagggggtac ccacctcct tcgctgggcc ctgctccttc tatagtcgac 60

ccctcagaaa ggccgggtgg gccgccacc 89

<210> 5

<211> 24

<212> DNA

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<222> (1)..(24)

<223> Synthetic PCR primer for vector construction/screening

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gcgatgggttg ttgtcattgt cggc

24

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<211> 24

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<400> 6

aaaagaaacg caaagacacc acgg

24

<210> 7

<211> 23

<212> DNA

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<222> (1)..(23)

<223> Synthetic PCR primer for vector construction/screening

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cctcctgagt acggtgatac acc

23

<210> 8

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer used to screen for recombinant clones.

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<222> (1)..(24)

<223> Synthetic PCR primer used to screen for recombinant clones

<400> 8

gtaaattcag agactgcgct ttcc

24

<210> 9

<211> 26

<212> DNA

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<223> Synthetic PCT used to screen for recombinant clones

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attttcggtc atagccccct tattag

26

<210> 10

<211> 65

<212> DNA

<213> Artificial sequence

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<220>

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<222> (1)..(65)

<223> Synthetic PCR primer recognizing FLAG tag nucleotide sequence

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caaacgggcg gccgcagact acaaggatga cgacgacaag gaaactgttg aaagttgttt 60

agcaa 65

<210> 11

<211> 51

<212> DNA

<213> Artificial sequence



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<222> (1)..(51)

<223> Synthetic PCT primer used to change codon usage in recombinant clones

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cccctcagaa aggccggctg ggccgccgcc agcattgaca ggagggttcag g 51

<210> 12

<211> 52

<212> DNA

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<220>

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<223> Synthetic PCT primer used to change codon usage in recombinant clones

<400> 12

gaaggagggtg gggtagcccg ttccgagggt ggttccggtt ccggtgattt tg 52

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<211> 36

<212> DNA

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<223> Synthetic PCR primer for vector construction/screening

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ccctcggaac cggtacccca gctgcttcgt gggccc 36

<210> 14

<211> 47

<212> DNA

<213> *Bacillus amyloliquefaciens*

<400> 14

ctggcggcgg ccagccggc cctgcacagg ttatcaacac gtttgac

47

<210> 15

<211> 43

<212> DNA

<213> *Bacillus amyloliquefaciens*

<400> 15

ctcggaaccg gtacctctga tttttgtaaa ggtctgataa gcg

43

<210> 16

<211> 44

<212> DNA

<213> *Gallus gallus*

<400> 16

ggcggcccag ccggcctttc tctctctgac gaggacttca aggc

44

<210> 17

<211> 41

<212> DNA

<213> Gallus gallus

<400> 17

cctcgggaacc ggtaccgaag agtcctttct ccttcttgag g

41

<210> 18

<211> 18

<212> DNA

<213> Artificial sequence

<220>

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<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic PCR primer used for library construction

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tacgccaagc ttgcatgc

18

<210> 19

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer used for library construction.

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic PCR primer used for library construction

<400> 19

ctgcacctgg gccatgg

17

<210> 20

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer used for library construction.

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic PCR primer used for library construction

<400> 20

gattacgccca agcttttg

17

<210> 21

<211> 126

<212> DNA

<213> *Erwinia chrysanthemi*

<220>

<221> misc\_feature

<223> n at positions 23, 24, 29, 55, 56, 81, 97, 101, and 102 can be G,  
A, T or C

<220>

<221> misc\_feature

<222> (23)..(23)

<223> n at position 23 can be G, A, T or C

<220>

<221> misc\_feature

<222> (24)..(24)

<223> n at position 24 can be G, A, T or C

<220>

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<222> (29)..(29)

<223> n at position 29 can be G, A, T or C

<220>

<221> misc\_feature

<222> (55)..(55)

<223> n at position 55 can be G, A, T or C

<220>

<221> misc\_feature

<222> (56)..(56)

<223> n at position 56 can be G, A, T or C

<220>

<221> misc\_feature

<222> (81)..(81)

<223> n at position 81 can be G, A, T or C

<220>

<221> misc\_feature

<222> (97)..(97)

<223> n at position 97 can be G, A, T or C

<220>

<221> misc\_feature

<222> (101)..(101)

<223> n at position 101 can be G, A, T or C

<220>

<221> misc\_feature

<222> (102)..(102)

<223> n at position 102 can be G, A, T or C

<400> 21

gattacgcc aagcttgcatg cannddctnt dtcaaggaga cagtcataat garrnnbcta 60

ttgsyaayrs yasyasyagb nttgttatta ctcsyanycv nncygdccat ggcccaggtg 120

cagctg 126

<210> 22

<211> 117

<212> DNA

<213> Bacteriophage M13mp18

<220>

<221> misc\_feature



<222> (18)..(18)

<223> Nucleotide at position 18 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (19)..(19)

<223> Nucleotide at position 19 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (20)..(20)

<223> Nucleotide at position 20 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (21)..(21)

<223> Nucleotide at position 21 can be G, A, T or C.

<400> 22

gattacgccca agctttgnnn ncttttttww ggagattttc aacrtgaraa rattattatt 60

csyaattsyt ttagttsyts ytttctwtgy ggyccagccg gccatggccc aggtgca 117

<210> 23

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer used for vector construction.

<400> 23

ctttatgctt ccggctcg

18

<210> 24

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer for library construction.

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic PCT primer for library construction

<400> 24

cggccccatt cagatcc

17

<210> 25

<211> 50

<212> DNA

<213> Artificial sequence

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<223> Randomized *E. chrysanthemi* pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized *E. chrysanthemi* pelB sequence

<400> 25

aagcttgcat gcaaattcta tdtcaaggag acagttataa tgaaatacct

50

<210> 26

<211> 50

<212> DNA

<213> Artificial sequence

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<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized E. chrysanthemi pelB sequence

<220>

<221> misc\_feature

<222> (14)..(14)

<223> n at position 14 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (15)..(15)

<223> n at position 15 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (20)..(20)

<223> n at position 20 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (45)..(45)

<223> n at position 45 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (46)..(46)

<223> n at position 46 can be G, A, T or C.

<400> 26

aagcttgcat gcannddctn tdtcaaggag acagtcataa tgarrnnbct

50

<210> 27

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized E. chrysanthemi pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized E. chrysanthemi pelB sequence

<400> 27

aagcttgcat gcagcatctc tdgcaaggag acagtcataa tgaagacgct

50

<210> 28

<211> 50

<212> DNA

<213> Artificial sequence

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<223> Randomized *E. chrysanthemi* pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized *E. chrysanthemi* pelB sequence

<400> 28

aagcttgcat gcacgggctg tdtcaaggag acagtcataa tgagagggct

50

<210> 29

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized *E. chrysanthemi* pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized E. chrysanthemi pelB sequence

<400> 29

aagcttgcat gcaccagctc tdtcaaggag acagtcataa tgaggcggct

50

<210> 30

<211> 55

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized E. chrysanthemi pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(55)

<223> Randomized E. chrysanthemi pelB sequence

<400> 30

attcctaacg gcagccgctg gattgttatt actcgcggcc cagccggcca tggcc

55

<210> 31

<211> 55

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized *E. chrysanthemi* *pelB* sequence.

<220>

<221> misc\_feature

<222> (1)..(55)

<223> Randomized *E. chrysanthemi* *pelB* sequence

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<221> misc\_feature

<222> (22)..(22)

<223> n at position 22 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (38)..(38)

<223> n at position 38 can be G, A, T or C.

<220>

<221> misc\_feature



<222> (42)..(42)

<223> n at position 42 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (43)..(43)

<223> n at position 43 can be G, A, T or C.

<400> 31

attgsyaayr syasyasyag bnttggtatt actcsyanyc vnncygdcca tggcc

55

<210> 32

<211> 55

<212> DNA

<213> Artificial sequence

<220>

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<220>

<221> misc\_feature

<222> (1)..(55)

<223> Randomized E. chrysanthemi pelB sequence

<400> 32

attgcyaatg gtactgtyag gattgttatt actcccaccc ggtccgtcca tggcc

55

<210> 33

<211> 55

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized E. chrysanthemi pelB sequence.

<220>

<221> misc\_feature

<222> (1)..(55)

<223> Randomized E. chrysanthemi pelB sequence

<400> 33

attgcyaatg ctagtgcyag gggtgttatt actcccaatc gcgccggcca tggcc

55

<210> 34

<211> 54

<212> DNA

<213> Artificial sequence

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<223> Randomized E. chrysanthemi pelB sequence.

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<221> misc\_feature

<222> (1)..(54)

<223> Randomized E. chrysanthemi pelB sequence

<220>

<221> misc\_feature

<222> (22)..(22)

<223> n at position 22 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (43)..(43)

<223> n at position 43 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (44)..(44)

<223> n at position 44 can be G, A, T or C.

<400> 34

attggtaata gcagcagtag bnttgtagg actcgacccc ccnncyadcc atgg

<210> 35

<211> 22

<212> PRT

<213> *Erwinia chrysanthemi*

<400> 35

Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala

1

5

10

15

Ala Gln Pro Ala Met Ala

20

<210> 36

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Randomized *E. chrysanthemi* pelB sequence.

<220>

<221> MISC\_FEATURE

<222> (1) .. (22)

<223> Randomized E. chrysanthemi pelB sequence

<400> 36

Met Lys Thr Leu Ala Met Val Leu Val Gly Gly Pro Pro Gly Pro Ser

1

5

10

15

Ala Gln Pro Ala Met Ala

20

<210> 37

<211> 21

<212> PRT

<213> Artificial sequence

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<223> Randomized E. chrysanthemi pelB sequence.

<220>

<221> MISC\_FEATURE

<222> (1)..(21)

<223> Randomized E. chrysanthemi pelB sequence

<400> 37

Met Arg Gly Leu Ala Met Leu Val Ala Gly Gly Pro Ile Ala Pro Ala

1

5

10

15

Gln Pro Ala Met Ala

20

<210> 38

<211> 23

<212> PRT

<213> Artificial sequence

<220>

<223> Randomized *E. chrysanthemi* pelB sequence.

<220>

<221> MISC\_FEATURE

<222> (1) .. (23)

<223> Randomized *E. chrysanthemi* pelB sequence

<400> 38

Met Arg Arg Leu Val Pro Ile Thr Ala Ala Val Gly Leu Leu Ala Pro

1

5

10

15

Pro Thr Gln Pro Ala Met Ala

20

<210> 39

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized bacteriophage M13 g3 sequence

<400> 39

aagcttttga cgcttttttt tggagatttt caacgtgaaa aaattattat

50

<210> 40

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (9)..(9)

<223> n at position 9 is can be G, A, t or C.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized bacteriophage M13 g3 sequence

<220>

<221> misc\_feature

<222> (10)..(10)

<223> n at position 10 is can be G, A, t or C.

<220>

<221> misc\_feature

<222> (11)..(11)

<223> n at position 11 is can be G, A, t or C.

<220>



<221> misc\_feature

<222> (12)..(12)

<223> n at position 12 is can be G, A, t or C.

<400> 40

aagctttggn nncttttttw wggagat ttt caacrtgara arattattat

50

<210> 41

<211> 50

<212> DNA

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<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized bacteriophage M13 g3 sequence.

<400> 41

aagctttggg gccttttttt aggagat ttt caacatgaga agattattat

50

<210> 42

<211> 50

<212> DNA

<213> Artificial sequence

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<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (1) .. (50)

<223> Randomized bacteriophage M13 g3 sequence

<400> 42

tcgcaattcc tttagttggt cctttctatg cggcccagcc ggccatggcc

50

<210> 43

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (1) .. (50)

<223> Randomized bacteriophage M13 g3 sequence

<400> 43

tcsyaattsy tttagttsyt sytttctwtg yggycagcc ggccatggcc

50

<210> 44

<211> 50

<212> DNA

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> misc\_feature

<222> (1)..(50)

<223> Randomized bacteriophage M13 g3 sequence

<400> 44

tcctaattcc tttagttggt gctttctatg tggccagcc ggccatggcc

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<210> 45

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> MISC\_FEATURE

<222> (1)..(22)

<223> Randomized bacteriophage M13 g3 sequence

<400> 45

Met Lys Lys Leu Leu Phe Ala Ile Pro Leu Val Val Pro Phe Tyr Ala

1

5

10

15

Ala Gln Pro Ala Met Ala

20

<210> 46

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Randomized bacteriophage M13 g3 sequence.

<220>

<221> MISC\_FEATURE

<222> (1)..(22)

<223> Randomized bacteriophage M13 g3 sequence

<400> 46

Met Arg Arg Leu Leu Leu Ala Pro Pro Val Ala Val Pro Phe Tyr Val

1

5

10

15

Val Gln Pro Ala Met Ala

20

<210> 47

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide primer used as a substrate for Stoffel  
fragment of *Thermus aquaticus* DNA polymerase I.

<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic oligonucleotide primer used as substrate for Stoffel fragment of *Thermus aquaticus* DNA polymerase I

<400> 47

tttcgcaaga tgtggcgt

18

<210> 48

<211> 12

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide primer used as a substrate for *Thermus aquaticus* DNA polymerase I.

<220>

<221> misc\_feature

<222> (1)..(12)

<223> Synthetic primer used as substrate for Stoffel fragment of *Thermus aquaticus* DNA polymerase I

<400> 48

gcgaagatgt gg

12

<210> 49

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide primer used as a substrate for *Thermus aquaticus* DNA polymerase I.

<220>

<221> misc\_feature

<222> (1)..(30)

<223> Synthetic oligonucleotide primer used as substrate for *Thermus aquaticus* DNA polymerase I

<400> 49

aaatacaaca ataaaacgcc acatcttgcg

30

<210> 50

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide sequence insert containing *Pst*I restric

tion site and frame shift for H102A mutant barnase fusion construct fused to p3 gene of phage fd-3.

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic oligonucleotide sequence insert containing PstI restriction site and frame shift for H102A mutant barnase fusion construct fused to p3 gene of phage fd-3.

<400> 50

ctgcaggcgg tgcggccgca

20

<210> 51

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide used for random priming.

<220>

<221> misc\_feature

<222> (1)..(24)

<223> Synthetic oligonucleotide used for random priming



<220>

<221> misc\_feature

<222> (19)..(19)

<223> n at position 19 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (20)..(20)

<223> n at position 20 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (21)..(21)

<223> n at position 21 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (22)..(22)

<223> n at position 22 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (23)..(23)

<223> n at position 23 can be G, A, T or C.

<220>

<221> misc\_feature

<222> (24)..(24)

<223> n at position 24 can be G, A, T or C.

<400> 51

gagcctgcag agctcaggnn nnnn

24

<210> 52

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic PCR primer used to re-amplify randomly amplified E. coli genomic DNA sequence.

<220>

<221> misc\_feature

<222> (1)..(23)

<223> Synthetic PCR primer used to re-amplify randomly amplified E. coli genomic DNA sequences.

<400> 52

cgtgcgagcc tgcagagctc agg

23

<210> 53

<211> 45

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(45)

<223> Barstar binding barnase-p3 fusion insert

<400> 53

Leu Gln Ser Ser Gly Asp Cys Val Ile Ser Asp Thr Cys Ile Ala Gly

1

5

10

15

Met Ala Glu Ala Ala Ala Cys Glu Glu Lys Phe Ser Ser Gln Asn Val

20

25

30

Gly Leu Thr Ile Thr Val Thr Pro Cys Leu Ser Ser Ala

35

40

45

<210> 54

<211> 44

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(44)

<223> Barstar binding barnase-p3 fusion insert

<400> 54

Leu Gln Ser Ser Gly Cys Gly Ser Ser Gly Ser Ser Ile Asn Cys Leu

1

5

10

15

Pro Cys Gly Ala Thr Ser Arg Gly Thr Ser Pro Leu Ala Ser Gly Leu

20

25

30

Pro Ser Ser Ala Thr Ile His Cys Leu Ser Ser Ala

35

40

<210> 55

<211> 40

<212> PRT

<213> Artificial sequence

<220>

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<220>

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<222> (1)..(40)

<223> Barstar binding barnase-p3 fusion insert

<400> 55

Leu Gln Ser Ser Gly Asp Ser Ala Gly Cys Lys Asn Met Thr Gly Gly

1

5

10

15

Arg Leu Tyr Ala His Thr Leu Glu Ala Ile Ile Pro Gly Phe Ala Val

20

25

30

Ser Ala Pro Ala Cys Glu Pro Ala

35

40

<210> 56

<211> 33

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(33)

<223> Barstar binding barnase-p3 fusion insert

<400> 56

Leu Gln Ser Ser Gly Cys Val Arg Leu Lys Arg Thr Ser Val Asn His

1

5

10

15

Gln Pro Asp Ala Trp Pro Glu Pro His Leu Lys Ala Ala Cys Glu Pro

20

25

30

Ala

<210> 57

<211> 44

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(44)

<223> Barstar binding barnase-p3 fusion insert

<400> 57

Leu Gln Ser Ser Gly Cys Gly Ser Ser Gly Ser Ser Ile Asn Cys Leu

1

5

10

15

Pro Cys Gly Ala Thr Ser Arg Gly Thr Ser Pro Leu Ala Ser Gly Leu

20

25

30

Pro Ser Ser Ala Thr Val Gln Cys Leu Ser Ser Ala

35

40

<210> 58

<211> 41

<212> PRT

<213> Artificial sequence

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<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(41)

<223> Barstar binding barnase-p3 fusion insert

<400> 58

Leu Gln Ser Ser Gly Lys Ile Val Gln Ala Gly Ala Asn Ile Gln Asp

1

5

10

15

Gly Cys Ile Met His Gly Tyr Cys Asp Thr Asp Thr Ile Val Gly Glu

20

25

30



Asn Gly His Ile Gly Leu Ser Ser Ala

35

40

<210> 59

<211> 45

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(45)

<223> Barstar binding barnase-p3 fusion insert

<400> 59

Leu Gln Ser Ser Gly Val Cys Val Ile Ser Asp Thr Cys Ile Ala Gly

1

5

10

15

Thr Ala Glu Ala Ala Ala Cys Glu Glu Lys Phe Ser Ser Gln Asn Val

20

25

30

Gly His Thr Ile Thr Glu Thr Pro Cys Leu Ser Ser Ala

35

40

45

<210> 60

<211> 44

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(44)

<223> Barstar binding barnase-p3 fusion insert

<400> 60

Leu Gln Ser Ser Gly Cys Gly Ser Ser Gly Ser Ser Ile Asn Cys Leu

1

5

10

15

Pro Cys Gly Ala Thr Ser Arg Gly Thr Ser Pro Leu Ala Ser Gly Leu

20

25

30

Pro Ser Ser Ala Thr Ile Gln Cys Leu Ser Ser Ala

35

40

<210> 61

<211> 53

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(53)

<223> Barstar binding barnase-p3 fusion insert

<400> 61

Leu Gln Ser Ser Gly Gln Asp Ser Gln Arg Glu His Ala Ser His Thr

1

5

10

15

Ala Glu Asp Asp Cys Glu Asp Gln Thr Arg Ile His Gln His Ile Arg

20

25

30

Glu Val Asp Phe Val Asp Thr Pro Gln Glu Val Asp Asp Cys Arg Ala

35

40

45

Ala Leu Ser Ser Ala

50

<210> 62

<211> 33

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1) .. (33)

<223> Barstar binding barnase-p3 fusion insert

<400> 62

Leu Gln Ser Ser Gly Cys Val Arg Leu Lys Arg Thr Ser Val Asn His

1

5

10

15

Gln Pro Asp Ala Trp Pro Glu Pro His Leu Lys Ala Ala Cys Glu Pro

20

25

30

Ala

<210> 63

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

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<222> (1)..(9)

<223> Barstar binding barnase-p3 fusion insert

<400> 63

Leu Gln Ser Ser Gly Val Arg Pro Ala

1

5

<210> 64

<211> 44

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(44)

<223> Barstar binding barnase-p3 fusion insert

<400> 64

Leu Gln Ser Ser Gly Cys Gly Ser Ser Gly Ser Ser Ile Asn Cys Leu

1

5

10

15

Pro Cys Gly Ala Thr Ser Arg Gly Thr Ser Pro Leu Ala Ser Gly Leu

20

25

30

Pro Ser Ser Ala Thr Ile Gln Cys Leu Ser Ser Ala

35

40

<210> 65

<211> 30

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(30)

<223> Barstar binding barnase-p3 fusion insert

<400> 65

Leu Gln Ser Ser Gly Thr Glu Val Asp Arg Gly Asn Gln Gln His Asp

1

5

10

15

Thr Asn Asp Arg Asp Phe Thr His Thr Pro Leu Ser Ser Ala

20

25

30

<210> 66

<211> 36

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(36)

<223> Barstar binding barnase-p3 fusion insert

<400> 66

Leu Gln Ser Ser Gly Val Ala Gln Gly Ser Ser Ala Ser Val Asp Val

1

5

10

15

Thr Ala Thr Asn Ala Val Leu Ser Ala Asp Ser Leu Ser Leu Gly Gly

20

25

30

Gly Glu Pro Ala

35

<210> 67

<211> 19

<212> PRT



<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(19)

<223> Barstar binding barnase-p3 fusion insert

<400> 67

Leu Gln Ser Ser Gly Gly Ala Val Ala Val Thr Pro Gly Pro Val Leu

1

5

10

15

Ser Ser Ala

<210> 68

<211> 18

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

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<222> (1)..(18)

<223> Barstar binding barnase-p3 fusion insert

<400> 68

Leu Gln Ser Ser Gly His Cys Arg Gly Lys Pro Val Leu Cys Thr His

1

5

10

15

Thr Ala

<210> 69

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(9)

<223> Barstar binding barnase-p3 fusion insert

<400> 69

Leu Gln Ser Ser Gly Val Arg Pro Ala

1 5

<210> 70

<211> 36

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(36)

<223> Barstar binding barnase-p3 fusion insert

<400> 70

Leu Gln Ser Ser Gly Glu Pro Ala Pro Ala His Glu Ala Lys Pro Thr

1 5 10 15

Glu Ala Pro Val Ala Lys Ala Glu Ala Lys Pro Glu Thr Pro Ala His

20

25

30

Leu Ser Ser Ala

35

<210> 71

<211> 33

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(33)

<223> Barstar binding barnase-p3 fusion insert

<400> 71

Leu Gln Ser Ser Gly Cys Val Arg Leu Lys Arg Thr Ser Val Asn His

1

5

10

15

Gln Pro Asp Ala Trp Pro Glu Pro His Leu Lys Ala Ala Cys Glu Pro

20

25

30

Ala

<210> 72

<211> 36

<212> PRT

<213> Artificial sequence

<220>

<223> Barstar binding barnase-p3 fusion insert.

<220>

<221> MISC\_FEATURE

<222> (1)..(36)

<223> Barstar binding barnase-p3 fusion insert

<400> 72

Leu Gln Ser Ser Gly Val Val Asp Trp Ala Lys Met Arg Glu Ile Ala

1

5

10

15

Asp Ser Ile Gly Ala Tyr Leu Phe Val Asp Met Ala His Val Ala Ala

20

25

30

Leu Ser Ser Ala

35

<210> 73

<211> 117

<212> DNA

<213> Artificial sequence

<220>

<223> Vector pK1 polylinker sequence.

<220>

<221> misc\_feature

<222> (1)..(117)

<223> Vector pK1 polylinker sequence

<400> 73

aatgctggcg gcggcccagc cggcctttct gaggggtcga ctatagaagg acgaggggcc 60

cacgaaggag gtgggggtacc cggttccgag ggtggttccg gttccggtga ttttgat 117

<210> 74

<211> 39

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptide encoded by pK1 vector polylinker sequence.

<220>

<221> MISC\_FEATURE

<222> (1)..(39)

<223> Polypeptide encoded by pK1 vector polylinker sequence

<400> 74

Asn Ala Gly Gly Gly Pro Ala Gly Leu Ser Glu Gly Ser Thr Ile Glu

1

5

10

15

Gly Arg Gly Ala His Glu Gly Gly Gly Val Pro Gly Ser Glu Gly Gly

20

25

30

Ser Gly Ser Gly Asp Phe Asp

35

<210> 75

<211> 117

<212> DNA

<213> Artificial sequence

<220>

<223> Vector pK2 polylinker sequence.

<220>

<221> misc\_feature

<222> (1)..(117)

<223> vector pK2 polylinker sequence

<400> 75

aatgctggcg gcggcccagc cggcctttct gaggggtcga ctatagaagg acgagggccc 60

acgaagcagc tgggggtaccg gttccgaggg tggttccggt tccggtgatt ttgatta 117

<210> 76

<211> 39

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptide sequence encoded by vector pK2 polylinker region.



<220>

<221> MISC\_FEATURE

<222> (1)..(39)

<223> Polypeptide sequence encoded by vector pK2 polylinker region.

<220>

<221> MISC\_FEATURE

<222> (38)..(38)

<223> X represents a TGA stop codon

<220>

<221> MISC\_FEATURE

<222> (36)..(36)

<223> X represents a stop codon (TGA)

<400> 76

Asn Ala Gly Gly Gly Pro Ala Gly Leu Ser Glu Gly Ser Thr Ile Glu

1

5

10

15

Gly Arg Gly Pro Thr Lys Gln Leu Gly Tyr Arg Phe Arg Gly Trp Phe

20

25

30

Arg Phe Arg Xaa Phe Xaa Leu

35

<210> 77

<211> 35

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence of the junction region between Barnase and p3 in recombi  
nant fusion vector fd-3.

<220>

<221> misc\_feature

<222> (1)..(35)

<223> Sequence of the junction region between Barnase and p3 in recombi  
nant fusion vector fd-3.

<400> 77

atcagactgc aggcggtgcg gccgcagaaa ctggtt

35

<210> 78

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Amino acid sequence about the junction of Barnase and p3 coding regions of recombinant fusion vector fd-3.

<400> 78

Ile Arg Leu Gln Ala Ala Ala Ala Glu Thr Val

1 5 10

<210> 79

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Factor Xa protease cleavage sequence.

<220>

<221> MISC\_FEATURE

<222> (1)..(1)

<223> X can be either Ile or Leu.

<220>

<221> MISC\_FEATURE

<222> (1)..(4)

<223> Factor Xa proteolytic cleavage site.

<400> 79

Xaa Glu Gly Arg

1

??

??

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